IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

CRYPTOPEAK SOLUTIONS, LLC,	§	
	§	
Plaintiff,	§	Civil Action No. 2:15-cv-01314-RWS-RSP
	§	
v.	§	PATENT CASE
	§	
STATE FARM MUTUAL AUTOMOBILE	§	JURY TRIAL DEMANDED
INSURANCE COMPANY,	§	
	§	ORAL HEARING REQUESTED
Defendant.	§	

DEFENDANT STATE FARM'S MOTION TO DISMISS UNDER
FED. R. CIV. P. 12(B)(6) FOR FAILURE TO STATE A CLAIM

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I.   STATEMENT OF THE ISSUES

Whether claims 1–45 and 49–59 are invalid under 35 U.S.C. Section 112 for simultaneously claiming two classes of subject matter, in particular, both method and apparatus?

Whether claims 46–48 are invalid under 35 U.S.C. Section 101 as directed to an abstract, mathematical concept?

II.   INTRODUCTION

The Complaint fails to state a claim because all claims of the patent-in-suit[1] are invalid. First, claims 1–45 and 49–59 are invalid as indefinite under 35 U.S.C. Section 112 for simultaneously claiming both a method and an apparatus in each individual claim. The well-recognized rule is that a claim may recite only one class of statutory subject matter. *See IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005) (invalidating a claim reciting apparatus and method limitations). Claims 1–45 and 49–59 include claims that recite "[a] method and apparatus," a claim that recites "[a]n apparatus . . . whereby: a method for finding a large prime . . . is used," and claims that recite "[a]n apparatus . . . comprising the steps of . . ." Thus, claims 1–45 and 49–59 are invalid as a matter of law under Section 112.

Second, claims 46, 47 and 48 are invalid under 35 U.S.C. Section 101 as directed to a patent-ineligible abstract idea: mathematical concepts and transformations not limited in any substantial way. For example, claim 46 merely recites: "A cryptosystem with keys based on three or more distinct prime numbers with arithmetic relations between them." A "cryptosystem" is an abstract idea and "keys" are merely numbers derived from "prime numbers." The only limiting element of the claim is that the "prime numbers" have "arithmetic

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[1] The sole patent-in-suit is U.S. Patent Number 6,202,150 ("the '150 Patent"), which is attached as Exhibit A. The claims are addressed by this motion in three groups. The claims in Exhibit A are highlighted indicating which claims are in Group A (yellow), Group B (blue), Group C (green).

relations between them." Claim 46 fails every test for patent eligible subject matter under Section 101 that has been offered by the courts. Claims 47 and 48 similarly fail to recite patent eligible subject matter. Thus, claims 46, 47 and 48 are invalid as a matter of law under Section 101.

Early disposition of the entire case prior to unnecessary and expensive fact/expert discovery and a judicially intensive examination of claim scope is clearly warranted where all claims of the patent in suit are invalid as a matter of law. Thus, State Farm requests the Court to dismiss the entire case for failure to state a claim under Federal Rule of Civil Procedure 12(b)(6).

III.   BACKGROUND

CryptoPeak asserts one patent in this case, U.S. Patent Number 6,202,150 ("the '150 Patent"). The '150 Patent purports to disclose a cryptosystem that allows escrow of keys to allow "trusted authorities" access to encrypted data if necessary. '150 Patent, Abstract. The patent was filed at a time when the U.S. Government was concerned that its surveillance efforts would soon be impossible as encryption technologies spread. *See* '150 Patent at 1:43–47. Key escrow systems provided a database of encryption keys that law enforcement agents could use to read encrypted communications during a (presumably authorized) wiretap. *See* '150 Patent at 1:49–53. Key escrow is analogous to the large keyring entrusted to a building superintendent that can unlock any apartment door to provide police access under a search warrant.

IV.   LEGAL STANDARD

A Rule 12(b)(6) motion to dismiss tests the legal sufficiency of the complaint. The rule is an important procedural mechanism that "authorizes a court to dismiss a claim on the basis of a dispositive issue of law" and "streamlines litigation by dispensing with needless discovery and fact finding." *Neitzke v. Williams*, 490 U.S. 319, 326–27 (1989). Under Rule 12(b)(6), a

complaint must be dismissed if the plaintiff has stated "a claim to relief that is plausible on its face." *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 547 (2007). A court "need not resolve unclear questions of law in favor of the plaintiff." *Kansa Reinsurance Co., Ltd. v. Congressional Mortg. Corp. of Tex.*, 20 F.3d 1362, 1366 (5th Cir. 1994), *abrogation on other grounds recognized by In re Sunpoint Securities*, 377 B.R. 513, 522 (Bkrtcy. E.D. Tex. 2007).

A Rule 12(b)(6) motion to dismiss may properly challenge the validity of a patent and may properly determine whether patent claims fall within a statutory class of subject matter. *See, e.g.*, *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1325 (Fed. Cir. 2011) (district court has the authority to grant Rule 12(b)(6) motion to dismiss under § 101), *vacated sub nom. WildTangent, Inc. v. Ultramercial, LLC*, No. 11-962, 212 WL 369157 (U.S. May 21, 2002). A motion dismiss may also determine whether patent claims are indefinite. *In re TLI Commc'ns LLC Patent Litig.*, 87 F. Supp. 3d 773, 804–05 (E.D. Va. 2015) ("Additionally, Claims 1 and 25, and dependent Claims 2–16 and 26, are invalid as indefinite pursuant to section § 112(f) because there is no disclosed structure corresponding to the claimed function in the means-plus-function terms. As a result, all of the claims in the '295 patent are invalid, and defendants' consolidated motion to dismiss is granted in these respects.").

V.   MIXED SYSTEM AND APPARATUS CLAIMS ARE INVALID

All but three claims of the '150 Patent are invalid as indefinite because they overtly claim two classes of subject matter in violation of 35 U.S.C. Section 112. *See IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005); *E-Watch Inc. v. Apple, Inc.*, No. 2:13-cv-1061, 2015 WL 1387947 (E.D. Tex. Mar. 25, 2015). Claims 1–45 and 49–59 are each invalid under Section 112 and are addressed in two sections below, one for each of two different claiming patterns.

A.   Each claim in Group A is invalid as indefinite because it expressly claims "a method *and* apparatus" in violation of Section 112

The first set of defective claims of the '150 Patent expressly recite "a method and apparatus" in clear violation of Section 112. *SFA Sys., LLC v. 1-800-Flowers.com*, 940 F. Supp. 2d 433, 454 (E.D. Tex. 2013) (Davis, C.J.) ("A single claim that recites two separate statutory classes of invention, e.g., "an apparatus and a method of using that apparatus," renders the claim indefinite under 35 U.S.C. § 112 ¶ 2.") (citing *IPXL*, 430 F. d at 1384 and *Ex parte Lyell*, 17 U.S.P.Q.2d 1548 (1990)). Specifically, Group A consists of claims 1–12, 15–18, 21, 23, 25–45, and 49–59, which either recite or depend from a claim that recites "a method and apparatus." The Court cannot redraft these claims to omit either "method" or "apparatus." *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011) ("[C]ourts may not redraft claims, whether to make them operable or to sustain their validity."). Therefore, the Court should declare these claims invalid at the outset of this case to avoid unnecessary litigation over claims that are invalid on their face.

The defect in these claims is so glaring that CryptoPeak may ask the Court to overlook or even correct the claims. But the Court must instead read the claims as written "not as the patentees wish they [] were written." *See E-Watch Inc. v. Apple, Inc.*, 2:13-CV-1061-JRG-RSP, 2015 WL 1387947, at *6 (E.D. Tex. Mar. 25, 2015) (quoting *Chef Am., Inc. v. Lamb–Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004)). The Court's power to correct errors is extremely limited and only allows correction of an obvious typographical or transcription error. *See Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003).

The prosecution history for the '150 Patent confirms that the originally filed claims claimed the same classes of subject matter. *See* Original Application at 16–23 (attached as

Exhibit B).[2] This evidence shows no typographical or transcription error and instead shows an express and overt decision to improperly claim two classes of invention in each claim of Group A.

One legally unacceptable result of so-called mixed claiming is confusion and uncertainty facing market participants and litigants. The Board of Patent Appeals and Interferences explained that "the statutory class of invention is important in determining patentability and infringement." *See Ex parte Lyell*, 17 U.S.P.Q.2d 1548, 1550 (B.P.A.I. 1990) (citing *In re Kuehl*, 475 F.2d 658, 665 (1973); *Rubber Co. v. Goodyear*, 76 U.S. 788, 796 (1869)); *see also H-W Tech., L.C. v. Overstock.com, Inc.*, 758 F.3d 1329, 1335 (Fed. Cir. 2014) ("The rationale behind invalidating such a claim as indefinite is that it is unclear when infringement occurs."); *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1318 (Fed. Cir. 2011). "[A]s a result of the combination of two separate statutory classes of invention, a manufacturer or seller of the claimed apparatus would not know from the claim whether it might also be liable for contributory infringement because a buyer or user of the apparatus later performs the claimed method of using the apparatus." *IPXL*, 430 F.3d at 1384. Such a claim is not "sufficiently precise to provide competitors with an accurate determination of the 'metes and bounds' of protection involved." *Id.*

This key risk described in *IPXL* and *Ex parte Lydell* arises here where CryptoPeak feels empowered to allege infringement of State Farm's computer system even though asserted claim 1 recites steps like a ***method*** claim. CryptoPeak's infringement allegation reads like a prototypical apparatus claim assertion wherein State Farm is alleged to infringe claim 1 by

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[2] The prosecution history of the '150 Patent, which is publicly available through the United States Patent and Trademark Office, is a public document that the court may rely upon in deciding this motion to dismiss. *Norris v. Hearst Trust*, 500 F.3d 454, 461 n.9 (5th Cir. 2007) ("[I]t is clearly proper in deciding a 12(b)(6) motion to take judicial notice of matters of public record.").

"*making*, *having made*, and/or using *one or more websites* that operate in compliance with the standards of Elliptic Curve Cryptography . . . ." Dkt. 1, Complaint, ¶ 13 (emphasis added). Essentially, CryptoPeak alleges that State Farm's website infringes even if no users access the website and no encryption or key escrow takes place. State Farm is left wondering whether infringement and invalidity questions will turn on actual use or on latent capabilities because of the indefinite wording of claim 1 (and the other claims in Group A).

CryptoPeak confirms its intent to seek damages for infringement of apparatus claims by alleging that it "is in compliance with 35 U.S.C. § 287." *Id.*, ¶ 14. The patent marking statute— Section 287—is only applicable if the '150 Patent contains apparatus claims. *See ActiveVideo Networks, Inc. v. Verizon Comm'ns, Inc.*, 695 F.3d 1312, 1335 (Fed. Cir. 2012). As a result, CryptoPeak seeks advantage in the intentional ambiguity—*i.e.*, the indefiniteness—of the claims and demonstrates the very harm recognized in *IPXL*. *See* 430 F.3d at 1384 (stating that it is unclear whether infringement occurs when one creates the system or uses it). State Farm is left guessing whether a latent capability of its website is accused or whether that capability is only accused if it has actually in use.

Thus, the Court should declare each of claims 1–12, 15–18, 21, 23, 25–45 invalid at the outset of this case to conserve judicial and party resources.

B.   Each claim in Group B is invalid as indefinite because it overtly claims a mix of method and apparatus elements in violation of Section 112

The second group of claims is indefinite under the same rationale as the claims in Group A even though the wording of the claims in this group differs slightly. This second group, Group B, consists of apparatus claims 13, 14, 19, 20, 22, and 24. Group B claims do not recite the unusual language "a method and apparatus" but instead follow the pattern of an apparatus improperly comprising method steps. *See IXPL* 430 F.3d at 1384. A valid apparatus claim

should recite only structural limitations (*i.e.*, structure or capabilities of structure) or functional language subject to 35 U.S.C. Section 112. *See Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008); *see also Rembrandt*, 641 F.3d at 1339.[3] The common flaw the Group B claims is the recitation of method steps rather than structural capabilities.

A recent post-*IPXL* case illustrates the difference between allowable structural capabilities and improper user actions. *See E-Watch Inc. v. Apple, Inc.*, 2:13-CV-1061-JRG-RSP, 2015 WL 1387947, at *6 (E.D. Tex. Mar. 25, 2015). One claim at issue in *E-Watch* recited an "[a]pparatus" comprising "operation of the input device by the user" and "movement by the user of the portable housing." *See* U.S. Patent No. 7,643,168 at 15:14–50 (Claim 1) (attached as Exhibit C). The plaintiff argued that the quoted language represented apparatus capabilities and did not "require a user to perform any steps to infringe." *E-Watch*, 2015 WL 1387947, at *5 (E.D. Tex. Mar. 25, 2015). The court rejected plaintiff's argument as an improper attempt to redraft the claims. *Id.* at *6. Instead, the court expressed no difficulty in finding that "the language used in the independent claims of [USP 7,643,168] is directed to ***user actions, not system capabilities***." *See id.* (emphasis added). The patentee's mix of an apparatus and a method for using the apparatus in the same claim rendered the claims indefinite under the rationale of *IPXL*. *Id.*

The claims in Group B include the same improper mix of apparatus and method limitations. For example, claim 13 recites an apparatus ("cryptosystem") comprising limitations of steps that users expressly must perform. Claim 13 reads as follows (with emphasis added):

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[3] Note that both of these cases followed the old "insolubly ambiguous" standard for indefiniteness that was struck down by the Supreme Court. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). As this Court has recognized, the Supreme Court's *Nautilus* decision "does not render all of the prior Federal Circuit and district court cases inapplicable." *Freeney v. Apple, Inc.*, Case No. 2:13-cv-361-WCB, 2014 WL 4294505, at *5 (E.D. Tex. Aug. 28, 2014) (Bryson, J., sitting by designation).

> 13. *A cryptosystem* wherein the private key agreed upon by the users is available to the key recovery agent or agents comprising the steps of:
>
> > *a first user*, based on its own private key and a second user's public key, *generates a resulting string*;
> >
> > *said second user*, based on its own private key and said first user's public key, *generates said resulting string*;
> >
> > said resulting string is recoverable by the key recovery agents.

In other words, the system of claim 13 must make available an agreed private key and the users must each generate something called a "resulting string." This apparatus claim containing steps performed by users violates Section 112 and renders the claim indefinite. *See E-Watch*, 2015 WL 1387947, at *6 (E.D. Tex. Mar. 25, 2015); *see also H-W Tech., L.C. v. Overstock.com, Inc.*, 758 F.3d 1329, 1336 (Fed. Cir. 2014) (citing *IPXL*, 430 F.3d at 1384).

As in *E-Watch*, the patentees were familiar with the different statutory classes of subject matter. *See* 2015 WL 1387947, at *6 (E.D. Tex. Mar. 25, 2015). Claim 12 recites a "method" and claim 19 recites an "apparatus." '150 Patent, 14:42 (claim 12), 15:43 (claim 19). Similarly, the abstract of the patent differentially uses the words method and system stating "[a] method is provided for . . ." and "the system is designed so that . . . ." This appropriate use of "system" and "method" in the specification confirms that the patentees understood their meaning. The specification also substantively describes both aspects. First, the specification explains that "[t]he present invention provides a method to verify that a user generated private key . . ." satisfies certain requirements. '150 Patent, 5: 1–2. Second, the specification describes the "system" aspects of its disclosure stating that the system can be implemented in computer software or specialized hardware. '150 Patent, 4:18–29. And the patent states that "only one private database is required to implement the escrow system" and details "[t]he system setup of the preferred embodiment . . . ." *Id.* at 4:38–39, 6:47. Finally, patentees applied for their patent rights through a presumably competent attorney or agent registered to practice before the U.S.

Patent and Trademark Office. *Id.* (cover page listing a representing firm). As in *E-Watch*, patentees here understood how to claim different statutory classes of subject matter but failed to appraise the public of the metes and bounds of their purported invention by mixing the classes of subject matter in the Group B claims.

The other claims of Group B follow the same indefinite pattern of including method steps in an apparatus claim:

- Claim 14 recites: "A cryptosystem . . . comprising the steps of: a first user . . . generates a signal and a resulting string . . . ."

- Claim 19 recites: "An apparatus . . . whereby a method for finding a large prime r . . . is used whereby all parties agree upon said large prime r."

- Claims 20, 22, and 24 recite: "An apparatus . . . comprising the steps of . . ."

Claims 20, 22, and 24 differ slightly in that they do not expressly require a user (or a party) to perform the step. However, the claims each expressly claim an apparatus comprising method steps to be performed and therefore are indefinite. *See SFA Sys.*, 940 F. Supp. 2d at 454.

Thus, the Court should declare each of claims 13, 14, 19, 20, 22, and 24 invalid at the outset of this case to conserve judicial and party resources.

VI.   THE REMAINING CLAIMS ARE INVALID UNDER SECTION 101 FOR FAILING TO CLAIM STATUTORY SUBJECT MATTER

While the remaining claims are also indefinite, the more straightforward defect to address at this stage of the case is their abstract nature. This final group of claims, Group C, consists of claims 46, 47, and 48. These three claims are broadly directed an abstract idea not limited in any meaningful way and should be declared invalid under Section 101.

The Section 101 analysis comes in two parts. First, a court should determine whether the claims at issue are directed to one of [a set of] patent-ineligible concepts" including "abstract

ideas." *Ultramercial, Inc. v. Hulu, Inc.*, 772 F.3d 709, 714 (Fed. Cir. 2014) (quoting *Alice Corp.*

Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014)). Second, a court should "determine

whether the claims do significantly more than simply describe that abstract method." *Id.* at 715

(citing *Mayo Collaborative Svcs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012). The

test becomes more complex when the claims recite pre- or post-solution activities, the use of

computers, or other limitations. *See id.*

The most relevant example of a patent held invalid on Section 101 grounds is the 1972

case of *Gottschalk v. Benson*, 409 U.S. 63 (1972). In *Benson*, the claims at issue were method

claims comprising steps of storing data in a register, performing manipulations like shifting and

masking (selectively ignoring portions of) the stored data, and performing arithmetic operations.

Id. at 73–74. Those claims to a mathematical approach for converting numbers from one digital

form to another digital form were rejected by the U.S. Patent and Trademark Office. *Id.* at 64.

As the Court explained:

> The conversion of BCD numerals to pure binary numerals can be
> done mentally through use of the foregoing table. The method
> sought to be patented varies the ordinary arithmetic steps a human
> would use by changing the order of the steps, changing the
> symbolism for writing the multiplier used in some steps, and by
> taking subtotals after each successive operation. The mathematical
> procedures can be carried out in existing computers long in use, no
> new machinery being necessary. And, as noted, they can also be
> performed without a computer.

Id. at 67. The Court affirmed the rejection explaining that allowance of the claims would

effectively patent an idea, even where the claims were expressly limited to use in a digital

computer. *Id.* at 71–72.

A. Claim 46 is abstract and has no substantial limitations

The claims in Group C are far more abstract and sweepingly than those in *Benson*. First,

claim 46 reads as follows:

> 46. A cryptosystem with keys based on three or more distinct
> prime numbers with arithmetic relations between them.

This claim merely requires a) multiple encryption keys, b) generated from three or more distinct prime numbers, and c) the prime numbers are mathematically related. Under the first factor of the patent eligibility analysis, claim 46 is more than sufficiently abstract. While cryptography may be implied by the term "cryptosystem," the claim broadly covers any use of three or more prime numbers to generate encryption keys. True, the claim requires arithmetic relations between the keys, but any two numbers are arithmetically related. For example the numbers 5 and 7 are prime numbers and are arithmetically related because $5 + 2 = 7$. Claim 46 forecloses any use of encryption keys based on three or more distinct prime numbers and is therefore sufficiently abstract to trigger a patentable subject matter inquiry under *Alice*.

Under the second prong of the eligibility analysis, we must consider whether the claim has significant limitations that might impart patentability. Claim 46 plainly does not add any significant limitations. Claim 46 does not require the use of any specialized hardware. This claim does not even require the use of a general purpose computer. Claim 46 does not require any encryption algorithm, much less a specific algorithm. Claim 46 does not require *anything* beyond any use of encryption keys generated from any three prime numbers and should be found invalid under Section 101.

B.   Claims 47 and 48 are abstract and have no substantial limitations

Claims 47 and 48 are nearly identical claims and read as follows:

> 47. A cryptosystem with encryption and decryption operations and
> key generation whereby operations are performed in any of three
> domains, F1, F2, and F3 such that F1 is the exponent domain of F2
> and F2 is the exponent domain of F3.

> 48. A cryptosystem whereby operations are performed in any of
> three domains, F1, F2, and F3 such that F1 is the exponent domain
> of F2 and F2 is the exponent domain of F3.

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Claim 48 omits the words "with encryption and decryption operations and key generation" to suggest broader scope than claim 47.

Under the first step of the subject matter analysis, claims 47 and 48 appear to cover any encryption system that satisfies a single abstract mathematical constraint. The constraint is that the operations of the claimed system are performed in three domains (a general mathematical concept) that that are mathematically related. If mathematical formulae are too abstract to be patentable, then mathematical relationships must also be too abstract. *See Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("The concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*."); *accord Alice*, 134 S. Ct. at 2355–56.

Under the second step of the analysis, claim 47 does not include any significant limitations that might impart patentability. Claim 47 does not require the use of any specialized hardware. This claim does not even require the use of a general purpose computer. Claim 47 does not require any encryption algorithm, much less a specific algorithm. Claim 47 does not require ***anything*** beyond the performance of "operations" in three domains and should be found invalid under Section 101. Claim 48 has fewer limitations and should also be found invalid under Section 101.

At this time, State Farm only challenges the validity of claims 46–48 under Section 101 in order to focus the parties and the Court on the simplest defects in the claims of the '150 patent.

VII.   CONCLUSION

The '150 patent claims in Group A (claims 1–12, 15–18, 21, 23, 25–45, and 49–59) and Group B (claims 13, 14, 19, 20, 22, and 24) improperly claim two classes of statutory subject matter and are therefore invalid as indefinite under Section 112. The remaining claims, Group C

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(claims 46–48), are directed to abstract ideas without substantial limitation and are therefore

unpatentable under Section 101. Accordingly, this case should be dismissed with prejudice for

failure to state a claim because all claims of the '150 Patent are invalid.

Dated: October 2, 2015

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have

consented to electronic service are being served with a copy of this document via the Court's

CM/ECF system per Local Rule CV-59(a) on this the 2nd day of October, 2015.

/s/ *Truman Fenton*
Truman Fenton